

# Minutes from Trace XML WG Meeting in Oslo, Nov 18-19, 2008

## “The Future Direction of TraceCore XML”

|                          |                             |
|--------------------------|-----------------------------|
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| Stefán Torfi Höskuldsson | Maritech                    |
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## Background

The background material and full agenda is not included here as it was distributed to the meeting participants in advance. A short recap is given below.

The purpose of the meeting was to discuss a possible new direction for the development and future of TraceCore XML after the Trace project has ended. And more specifically – a direction where TraceCore XML is being aligned with EPCglobal EPCIS standards. This initiative was brought up by TraceTracker because we see an enormous traction and interest around EPCglobal related standards from big industry players, both from within the food industry and from other industries. Given that one of the goals with TraceCore XML is to create a format that *will be used commercially after the Trace project ends*, we feel that it is necessary to at least check how an alignment with EPCIS formats can be done. In this process it will be necessary to check whether current TCX use cases are possible to solve within an EPCIS context, as well as checking whether we should extend the scope of TCX to involve more use cases. Such possible extension of the scope of TCX comes up independent of the EPCIS alignment, as many early adopters of TCX have asked for more functionality in some areas.

## Minutes

TraceTracker started the meeting with an introduction to EPCglobal and EPCIS related standards and frameworks. FoodRegs and Maritech asked many relevant questions and we had an interesting discussion. Some important issues that came up:

- EPCIS standards are not only about RFID technology! Even if the EPC initiative came from the RFID community, most high level<sup>1</sup> EPC standards can be used independent of an RFID data capture environment.
- Even if most EPC (the Electronic Product Code) key schemes rely on GS1 numbers, it is possible to compose keys that are not based on GS1 numbers.

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<sup>1</sup> i.e. – software related standard as opposed to standards addressing RFID tags, frequencies etc.

- In general, it is not necessary for an end-user company to become a member of EPCglobal or GS1 to use the standards. They are open and can be used by anyone. But to be able to issue own EPCs that are not based on GS1 numbers, a company will need an “EPC General Manager Address” within an EPCglobal controlled namespace. Such an address must be requested and bought from EPCglobal. This is similar to buying an Internet domain name, a name that is guaranteed to be unique on the Internet.

We spent some time studying examples and XML schemas and identified some focus areas of special interest for TraceCore XML:

- **Batch transformations** – neither EPCIS nor current TCX supports this very well. The reason for both is that these issues were not within the initial scope. Within the EPC community the need for such functionality has been addressed, and several organizations are working with extensions that will allow internal traceability to be modeled. The TCX group in Trace could do the same, and even submit proposals to EPCglobal. By engaging in such activities, we have an excellent opportunity to influence how this is done.
- **Internal traceability/logistics** – this is also an area where current TCX comes short, since there is no easy way to capture internal batch movements in a chain (logistics operations). Again, this was not within the original scope of TCX, but requested from some of the adopters of TCX. However, this is an area that is at the core of what EPCIS offers.
- **Property extensions** – feedback from early adopters of TCX indicate that the property extension mechanism in current TCX is too vague, too complex, difficult to understand and possibly not flexible enough for their needs. In EPCIS, property extensions are well taken care from day one in the original design and the formal definitions easy to understand. However, there is still standardization work going on within EPCglobal that is relevant here. For instance the work going on in the Action Group for “Core Business Vocabulary”, a group where TraceTracker is a member by the way. Several organizations have already used and documented their use of the property extensions in EPCIS, so it could be useful for our group to do the same. For instance by contacting some of the early TCX adopters that were concerned about properties and see how easy it would be to map their properties onto the extension mechanisms in EPCIS.

Heiner Lehr suggested that it may be a good idea to define *an abstract data model* for (current) TCX, and then see if it is possible to map the model onto more than only one standard XML format. One such format could be EPCIS XML, another format could be the current TCX. In any case, it is a good idea to have such an abstract model as it is easier to read than the XML representation. Maritech got the responsibility for creating this abstract model in the form of UML diagrams.

We scheduled a follow-up meeting in Barcelona around February 5-6<sup>th</sup> (details remains to be decided), but many immediate action points were already defined as a preparation for that meeting.

## **Actions and follow ups**

All actions must be completed in due time before the scheduled meetings in Barcelona.

| Action   | Status       | Responsible  |
|--|--------------|--------------|
| 1. Create and distribute a suggestion for an abstract model  | Ongoing      | Maritech     |
| 2. Respond to the model  | Ongoing      | All          |
| 3. Find and distribute use-cases for the exchange of traceability data which possibly can lead to a new scope for TCX  | Due December | TraceTracker |
| 4. Try to map property extension needs from TCX adopters onto an EPCIS model   | Due January  | TraceTracker |
| 5. Create a suggestion for how both batch transformations and property extensions can be done based on EPCIS, distribute this to the TCX group in time before the meeting in Barcelona | Due January  | TraceTracker |

## References

- The ratified EPCIS standard. Pay attention to these sections in special: Chapter 6 and 7 and the figure on page 9.

[www.epcglobalinc.org/standards/epcis/epcis\\_1\\_0\\_1-standard-20070921.pdf](http://www.epcglobalinc.org/standards/epcis/epcis_1_0_1-standard-20070921.pdf)

- The ratified Tag Data Standard. Pay attention to these sections: Chapter 1 and 2 and Appendix B.

[www.epcglobalinc.org/standards/tds/tds\\_1\\_4-standard-20080611.pdf](http://www.epcglobalinc.org/standards/tds/tds_1_4-standard-20080611.pdf)

- The EPCIS FAQ

[http://www.epcglobalinc.org/standards/epcis/epcis\\_1\\_0-faq-20070427.pdf](http://www.epcglobalinc.org/standards/epcis/epcis_1_0-faq-20070427.pdf)